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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,333	03/12/2001	Subramanian Meiyappan	CISCP675	1800
26541	7590	01/25/2005	EXAMINER	
RITTER, LANG & KAPLAN 12930 SARATOGA AE. SUITE D1 SARATOGA, CA 95070			DO, CHAT C	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/805,333

Applicant(s)

MEIYAPPAN, SUBRAMANIAN

Examiner

Chat C. Do

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2004 and 02 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This communication is responsive to Amendment filed 10/20/2004 and 12/02/2004.
2. Claims 1-19 and 21 are pending in this application. Claims 1, 7, and 13 are independent claims. In Amendment, claims 20 is cancelled, 21 is added, and claims 1, 7, and 13 are amended. This Office action is made non-final after a RCE filed 12/02/2004.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 4-8, 10-14, 16-19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Saints et al. (U.S. 6,430,170).

Re claim 1, Saints et al. disclose in Figures 3-5 a method for generating a random value (abstract and Figures 4-5), method comprising: monitoring a signal obtained from a communication channel (col. 2 lines 19-23 and lines 38-42 wherein the communication channel is the wireless channel), communication channel being part of a communication network signal being arranged to include data (e.g. col. 1 lines 19-24 and col. 2 lines 25-35), signal further including additive noise (e.g. col. 2 lines 21-22), wherein

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communication network is arranged to implement access to the internet (e.g. col. 1 lines 45-49); sampling signal to generate a random value (e.g. energy sample); and storing random value (e.g. output of 410).

Re claim 2, Saints et al. further disclose in Figures 3-5 using random value as input to a cryptographic key generation process (e.g. col. 1 lines 50-60).

Re claim 4, Saints et al. further disclose in Figures 3-5 monitoring a digital signal represented by multiple bits (e.g. Figure 4 and abstract lines 10-12).

Re claim 5, Saints et al. further disclose in Figures 3-5 reordering multiple bits prior to sampling (e.g. 402).

Re claim 6, Saints et al. further disclose in Figures 3-5 output of an analog to digital converter (Figure 1 inherently at the receiver site or cell phone).

Re claim 7, it is an apparatus claim of claim 1. Thus, claim 7 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 8, it is an apparatus claim of claim 2. Thus, claim 8 is also rejected under the same rationale as cited in the rejection of rejected claim 2.

Re claim 10, it is an apparatus claim of claim 4. Thus, claim 10 is also rejected under the same rationale as cited in the rejection of rejected claim 4.

Re claim 11, it is an apparatus claim of claim 5. Thus, claim 11 is also rejected under the same rationale as cited in the rejection of rejected claim 5.

Re claim 12, it is an apparatus claim of claim 6. Thus, claim 12 is also rejected under the same rationale as cited in the rejection of rejected claim 6.

Re claim 13, it is an apparatus claim of claim 1. Thus, claim 13 is also rejected under the same rationale as cited in the rejection of rejected claim 1.

Re claim 14, Saints et al. further disclose in Figures 3-5 a sampler that samples signal to generate random value (Figure4).

Re claim 16, Saints et al. further disclose in Figures 3-5 signal is a digital signal (abstract lines 10-12).

Re claim 17, it is an apparatus claim of claim 5. Thus, claim 17 is also rejected under the same rationale as cited in the rejection of rejected claim 5.

Re claim 18, it is an apparatus claim of claim 6. Thus, claim 18 is also rejected under the same rationale as cited in the rejection of rejected claim 6.

Re claim 19, Saints et al. further disclose in Figures 3-5 the signal further includes a modulation signal, and the additive noise is AWGN (col. 1 lines 25-49 and col. 2 lines 19-22).

Re claim 21, Saints et al. further disclose in Figures 3-5 communication network is one of a wireless communication network (abstract lines 1-4), a data over cable network, and a DSL network.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 3, 9, and 15 are rejected under 35 U.S.C. 103(a) as being obvious over Saints et al. (U.S. 6,430,170), as applied to claim 1, 7, and 14 above, in view of Koopman Jr. (U.S. 5,696,828).

Re claim 3, Saints et al. do not disclose in Figures 3-5 sampling comprises: sampling at times determined by output of a linear feedback shift register. However, Koopman Jr. discloses in column 1 lines 59-68 and column 2 lines 1-10 that a random number generators based on linear feedback shift register. Therefore, it would have been obvious to a person in the art at the time the invention is made to add a LFSR as seen in Koopman Jr.'s invention into Saints et al.'s because it would enable to reduce the circuitry to produce truly random numbers for a limited set (col. 1 lines 65-68 and col. 2 lines 1-2).

Re claim 9, it is an apparatus claim of claim 3. Thus, claim 9 is also rejected under the same rationale as cited in the rejection of rejected claim 3.

Re claim 15, it is an apparatus claim of claim 3. Thus, claim 15 is also rejected under the same rationale as cited in the rejection of rejected claim 3.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-19 and 21 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 6,661,833 to Black et al. disclose a PN generators for spread spectrum communications systems.
- b. U.S. Patent No. 4,183,088 to Simmons discloses a random number generator.
- c. U.S. Patent No. 5,121,349 to Naito discloses a digital noise generator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
Art Unit 2124

January 14, 2005

*Kakali Chaki*

**KAKALI CHAKI  
SUPERVISOR - PATENT EXAMINER  
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Application/Control Number: 09/805,333

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